

Innovative shade system

By **JON CONDON**

ADOPTING crop protection technologies developed over the past 10 years in the orchard industry is one of the latest innovations being seen in the feedlot sector for the provision of shade protection.

Geoff Willett's Maydan feedlot near Warwick is the first to install new shade systems based on tree netting infrastructure used to protect valuable stonefruit and other orchard crops from hail and bird damage.

All pens at the 8000-SCU feedlot including general feeding pens, hospital pens, yards, pound and induction area now have shade areas provided. In feeding pens, this amounts to at least 3.5sq m/beast.

Feeding a mix of longed Wagyu and short to medium-term grainfed cattle, Mr Willett said the project took Maydan from a situation where 20 percent of pens had some shade access, to 100pc.

Distinct productivity advantages have been identified since the shade project was completed.

"In all cattle – not just longfed Wagyu – we are seeing a greatly reduced decline in average daily consumption during very hot periods. We've recorded consumption in cattle with access to shade dropping from 15kg/day to 14kg during more extreme heat conditions, while 'outside' cattle with no shade access have dropped to 10kg/day," Mr Willett said.

The design uses a network of tensioned wire-rope cables running in opposing directions, creating an overhead grid pattern.

This allows 'blocks' of shade to be added in almost infinitely variable combinations, which is particularly helpful where pens are aligned in less than ideal directions relative to the sun's path, or where there are pens of inconsistent size and shape.

Cables are supported from anchored timber posts at a height of at least 5m, allowing easy access and good clearance for machinery during



The high tension cabling systems used to support shade cloth at Maydan largely do away with the need for internal posts.

pen cleaning.

The height of the shade panels also gives better 'movement' of the shade as the sun travels across the sky, providing more effective surface drying.

"Unlike other conventional shade structures, this system is very flexible in terms of the amount, and alignment of shade provided in each pen," Mr Willett said.

"If more shade is required, it is simply a matter of filling in more of the chequerboard between intersecting cables," he said.

Other advantages include:

- No need for internal support posts within pen perimeters,

reducing obstructions when pen cleaning

- There is no 'metal against metal' support system, nor the need for springs or other tensioning devices. This reduces noise from the shade structure to zero.

- Construction cost per beast was \$32/head – described as 'more than competitive' with other comparable shade systems.

- The structure is virtually maintenance-free, with no need to re-tension cables. The life expectancy of the specialised shade cloth is a minimum of 10 years, and many orchards have similar systems which have lasted longer than that.

